



## What you should know about the Heartbleed Bug

Tim Clarkin

A recently discovered flaw in certain versions of Open SSL, known as the “Heartbleed bug,” has recently caught the attention of most of the Internet. Essentially, this flaw meant that web traffic using HTTPS connections, which were previously assumed to be encrypted and safe, could be exploited to retrieve the data being transferred (including usernames and passwords, credit card numbers, and other sensitive data). Many news reports and security advisories have been issued about this flaw, so you may be wondering what the implications are for you.



As with any major security flaw or breach, hardware and software companies began working to disable or correct the flaw as soon it was discovered. To date, there has been only one confirmed case of a hacker exploiting the flaw to compromise information, but there is also no way to tell for certain whether hackers were aware of the exploit or were using it to access information prior to the flaw becoming public knowledge.

Many popular websites (such as Yahoo, Google, etc.) were affected by the vulnerability, and now that these services have been patched or updated, there have been many advisories urging users to change passwords. For our clients that host their own email server, or who have a website utilizing any kind of login feature, we strongly recommend checking with M&H Consulting to review whether those web services were vulnerable to this flaw, and whether or not that vulnerability still exists. As with any security threat, the most important ways to prevent being affected are to keep all systems and equipment up-to-date with the latest patches & updates, and to change passwords where appropriate.



For our regular maintenance (“Tech For a Day”) clients, we are taking care of these issues during our pre-scheduled visits; however, we can also proactively update systems sooner, if there is a concern and our next scheduled visit isn’t for some time. While the real-world impact of this particular threat has been minimal so far, it is

very possible that hackers will develop more efficient ways to exploit out-of-date systems as time goes on.

Regarding passwords, we recommend that all of our clients use secure passwords that are rotated frequently (usually between one to four times per year, depending on the size of the office, the types of data handled, and other factors that might elevate or lower risk).



We do recommend changing passwords, simply because that is always the best way to keep your information secure. A secure password is typically defined as having seven or more characters, including at least 1 upper and 1 lower-case letter, as well as 1 number and 1 symbol.

If you have questions about your current passwords or password policy, or your exposure as it relates to the Heartbleed vulnerability, please contact us at [support@mhconsults.com](mailto:support@mhconsults.com) and we can help you determine what should be changed or updated at this time.

### TECH TIPS: Windows Keyboard Shortcuts

The Windows operating system includes many time-saving keyboard shortcuts that work across most programs. Becoming familiar with these and using them on a regular basis can really help users become more efficient when creating and editing documents. Below is a list of commonly used helpful shortcuts.

How many of the following shortcuts did you already know? Keep in mind that these are not guaranteed to work in all applications, but try them out and see if they help to save effort and time for you.

- CTRL + C:** Copies highlighted or selected data to the Windows clipboard.
- CTRL + X:** Cuts highlighted or selected data, and places it on the Windows clipboard.
- CTRL + V:** Pastes copied or cut data from the Windows clipboard to the cursor location.
- CTRL + Z:** Undo the most recent change.
- CTRL + F:** Opens the “find” or search tool in applications.
- CTRL + S:** Saves your file.
- CTRL + Mouse scroll wheel:** Zooms your view in and out.
- CTRL + P:** Brings up the Print menu.
- CTRL + Home / CTRL + End:** Moves your cursor to the beginning or end of a document.
- CTRL + TAB:** Switch between tabs in a browser.
- ALT + TAB:** Quickly switch between your open programs.
- Windows + D:** Minimize all programs and show the Desktop.
- Windows + E:** Open Windows Explorer.
- Windows + L:** Lock your computer.



## 802.11ac—The New Wifi Standard

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Wireless networking is something we take for granted and use almost every day without a second thought. It is convenient to have network and internet access anywhere in our office or our home regardless of our location and without the need for wires. Computers, smartphones, TVs, printers, and many other electronics all have Wi-Fi capability, which has become an indispensable feature. However, having all of these devices on your wireless network simultaneously can slow it down tremendously, interfering with productivity or entertainment.



Thankfully, wireless networking technology has progressed over the years to keep up with the growing number of wireless devices, the most recent advancement being 802.11ac, a new standard that promises to deliver next generation speed as well as backwards compatibility.

Probably the most compelling reason to upgrade your existing wireless network to 802.11ac is for the performance increase. This new standard has a maximum transfer rate of 1300 Mbps or almost 2.16 times faster than 802.11n (the next most recent standard), assuming both use the newer 3x3 MIMO standard and optimal spatial streams. Additionally, if you are upgrading from 802.11g (commonly found on routers that are a few years old), which operates at up to 54 Mbps then you will see an even greater speed increase of approximately 29 times faster. Provided that your internet and other network components can keep up with the higher bandwidth, this performance increase will allow you to send and receive files quicker, stream videos in higher resolution, and access data on your network with close to wired connection speed. Your wireless connection will no longer be the bottleneck it once was.

To get the most out of 802.11ac, your router or access point and wireless devices both need to implement this new standard. However, 802.11ac networking equipment is backwards compatible with 802.11 a/b/g/n, so even though your older devices will not see a performance increase they

can still connect to and utilize it. In addition, since this new wireless standard operates at 5 GHz you are less likely to experience the same interference and overcrowding as with the older 802.11 b/g/n devices, which operate at 2.4 GHz, a common issue in office building, apartment complexes, and other densely populated areas.



802.11ac is steadily gaining popularity, and for good reason too. It is much faster than its predecessors are, it is backwards compatible with existing devices, and most newer computers support it or can be upgraded to support it.

If you have any questions about 802.11ac Wi-Fi, contact us any time at 866-9MH-TECH or email us at [support@mhconsults.com](mailto:support@mhconsults.com).

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